

**GENERAL NOTES**

- UNLESS SHOWN OR STATED OTHERWISE ON THESE DRAWINGS, MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF SEVENTY-TWO (72) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

KANSAS ONE-CALL 1-800-344-7233  
or 687-2470 (LOCAL WICHITA)

THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

AT&T (TELEPHONE)	800-870-8390
COX COMMUNICATIONS (CABLE)	262-0661
KANSAS GAS SERVICE (GAS)	832-3101
CITY OF WICHITA WATER & SEWER	262-6000
WESTAR (ELECTRIC)	383-8600
BLACK HILLS ENERGY (GAS)	800-303-0357

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
- EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
- COST OF EXCAVATION, HAULING, AND DUMPING OF EXCESS EXCAVATION SHALL BE SUBSIDIARY TO THE PROJECT.
- A PORTION OF EXCESS EXCAVATED MATERIAL SHALL BE MOUNDED AROUND MANHOLES WHICH EXTEND MORE THAN ONE (1) FOOT ABOVE THE EXISTING GROUND. SUCH MOUNDS SHALL BE CONSTRUCTED WITH A SIX (6) FOOT DIAMETER FLAT TOP WITH 4 TO 1 SIDE SLOPES DOWN TO THE ORIGINAL GROUND. THE ELEVATION OF THE FLAT TOP OF THE MOUND SHALL BE 0.4 FOOT BELOW THE TOP OF THE MANHOLE.
- ALL STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE IN THE SAME MANNER AS RISERS.
- CONNECTING TO EXISTING MANHOLES:  
PRIOR TO LAYING SEWER LINES USING EXISTING STUBS IN EXISTING MANHOLES, THE CONTRACTOR SHALL EXPOSE AND VERIFY THE ELEVATION, GRADE AND ALIGNMENT OF EXISTING STUBS AND NOTIFY THE ENGINEER OF ANY DEVIATION FROM THE PLAN. WHERE CONNECTING TO AN EXISTING MANHOLE THAT DOES NOT HAVE AN EXISTING STUB OR THE STUB IS UNUSABLE DUE TO ELEVATION GRADE OR ALIGNMENT, THE CONTRACTOR SHALL BORE CUT INTO EXISTING MANHOLE WALL TO MAKE CONNECTION USING APPROVED WATER STOP GASKET, AND RESHAPE THE EXISTING MANHOLE INVERT TO PROVIDE SMOOTH FLOW. THE COST OF CONNECTING TO EXISTING MANHOLES IS INCIDENTAL TO THE PROJECT.
- TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.
- ALL DISTURBED AREAS TO BE SEEDED WITH RYE GRASS AT A RATE OF 200 LBS. PER ACRE WITHIN 10 DAYS OF CONSTRUCTION. CONTRACTOR TO PREPARE GROUND PER CITY SPECIFICATIONS. COST IS SUBSIDIARY TO SITE PREPARATION AND RESTORATION.
- WORK DONE UNDER THIS PROJECT IS SUBJECT TO THE CITY OF WICHITA REQUIREMENTS FOR "CONSTRUCTION OF INFRASTRUCTURE IMPROVEMENTS BY PRIVATE CONTRACT." THE CONTRACTOR SHALL BE FAMILIAR AND COMPLY WITH ALL OF THE REQUIREMENTS, INCLUDING BONDING, INSPECTION, TESTING, NOTIFICATION, PROVIDING AS-BUILT DRAWINGS, PAYING FOR ALL NECESSARY CONNECTIONS AND/OR STREET REPAIR FEES AND PROVIDING PIPE MATERIAL AND OTHER CERTIFICATIONS.
- ALL SANITARY SEWER TRENCHES TO BE BACKFILLED WITH SAND, FLUSHED & VIBRATED WHERE SEWER TRENCHES RUN BENEATH PAVEMENT.

**T. Mason - City of Wichita, Field Inspector  
Risers  
Release Date: 10/11/2013  
:APRosas 10/14/2013**

**SANITARY SEWER  
TO SERVE  
PRESBYTERIAN MANOR**

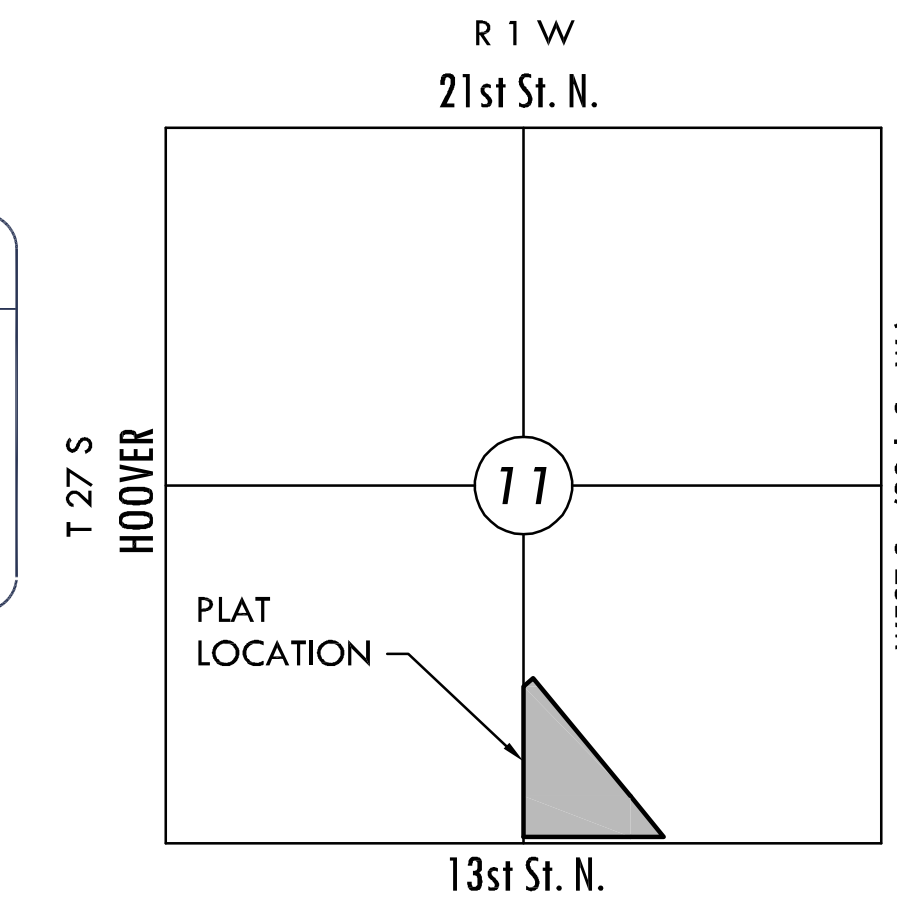
PROJECT NO. 2160PPS

THE CITY OF WICHITA, KANSAS  
GARY JANZEN, P.E. - CITY ENGINEER

OCA NO. 607861

**MANHOLE STA 10+00 line 1 is located 209LF East of existing upstream Manhole located in 13th street**

AS BUILTS	
Contractor: McCullough Excavation, Inc.  10/09/2013	Project Inspector: Tom Jones  <b>kemiller</b> engineering 516 S. Market Wichita, KS 67202 (316)244-0242

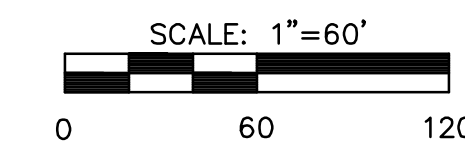


**VICINITY MAP**  
No Scale

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-4	DETAILS
5	LINE 1
6	LINES 2 & 3

**BENCHMARKS**

BM #1 PK Nail and Washer on South side of 13th Street North, in line with East edge of East drive into Presbyterian Manor, 34 feet South of back of North curb of 13th Street. Elev. = 1314.21 (NAVD 88)

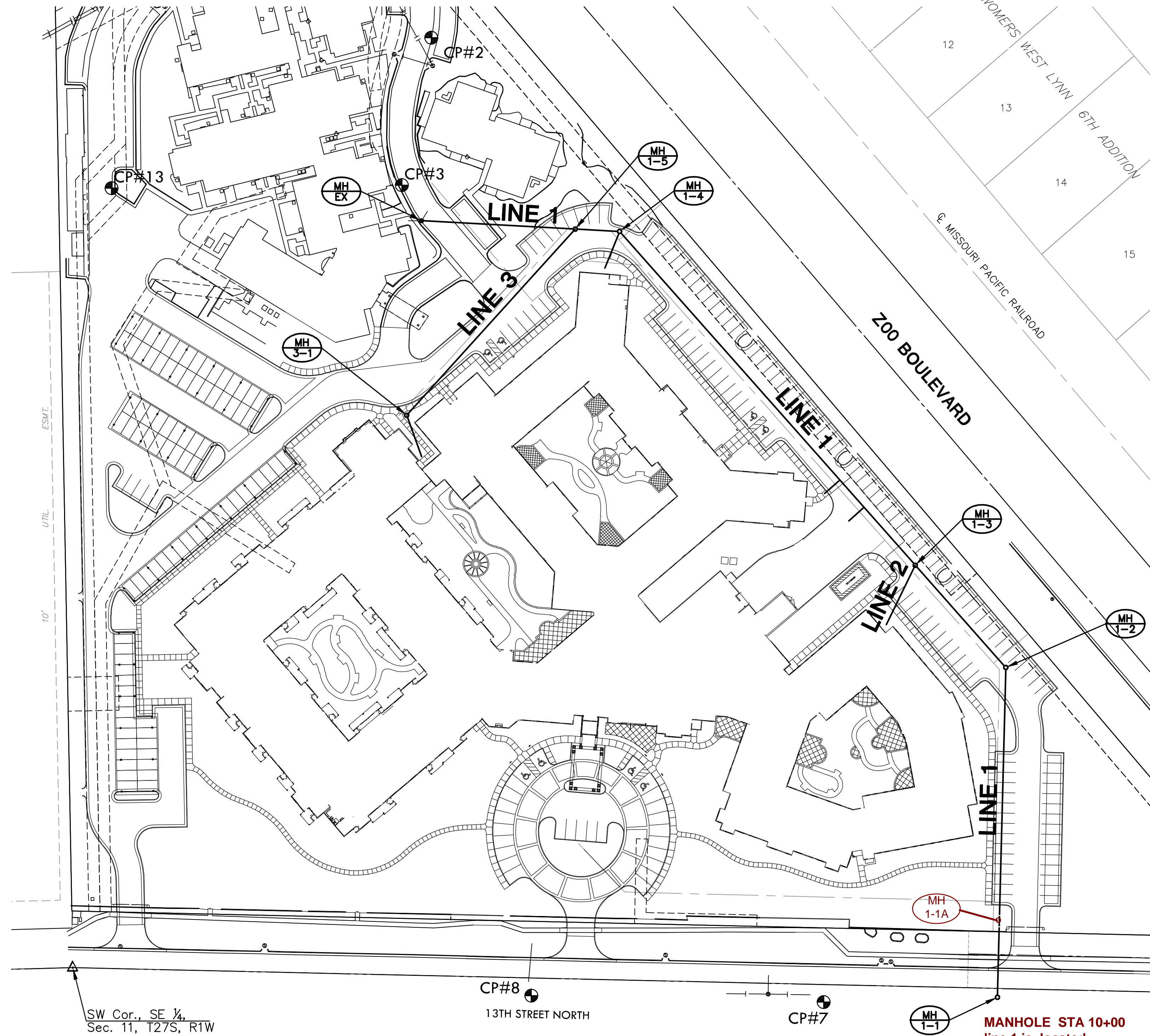


**APPROVED AS NOTED  
BY CITY ENGINEER OF WICHITA, &  
WICHITA WATER & SEWER DEPARTMENT**

San. Svr. Maint. *Julianne Kallman 4-23-13*  
(Public Works)

**NOTE TO CONTRACTORS**

**Public Property:**  
Inspection and testing for the sanitary sewer is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita Standard Construction Engineering Practices and certified by a Professional Engineer licensed in the state of Kansas. No work shall be performed in dedicated easements or public rights-of-way by the Contractor without such inspection, nor shall any work be commenced without written authorization by the City Engineer. All construction and materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).



**CONTROL POINTS**

- |   |  |
|---|--|
| <p>PT #2<br/>1. PK Nail with MKEC washer<br/>2. N = 169479.489 E = 1631395.07<br/>Elev. = 1316.27 NAVD 88</p> | <p>PT #8<br/>1. PK Nail with MKEC washer<br/>2. N = 1693949.05 E = 1631483.51<br/>Elev. = 1315.35 NAVD 88</p>  |
| <p>PT #3<br/>1. PK Nail with MKEC washer<br/>2. N = 1694664.67 E = 1631369.14<br/>Elev. = 1317.36 NAVD 88</p> | <p>PT #13<br/>1. PK Nail with MKEC washer<br/>2. N = 1694661.99 E = 1631112.90<br/>Elev. = 1317.62 NAVD 88</p> |
| <p>PT #7<br/>1. PK Nail with MKEC washer<br/>2. N = 1693943.35 E = 1631741.59<br/>Elev. = 1314.22 NAVD 88</p> |  |

**MKEC**  
ENGINEERING  
CONSULTANTS, INC.  
411 N. WEBB ROAD  
WICHITA, KS. 67206  
316-684-9600

**SANITARY SEWER PLANS FOR  
PRESBYTERIAN MANOR  
WICHITA, KANSAS**

**SS TITLE SHEET**  
SHEET TITLE  
2160PPS  
PROJECT NUMBER

**SPE BKS GJA**  
DESIGNED DRAWN CHECKED

ISSUED  
*April 2013*

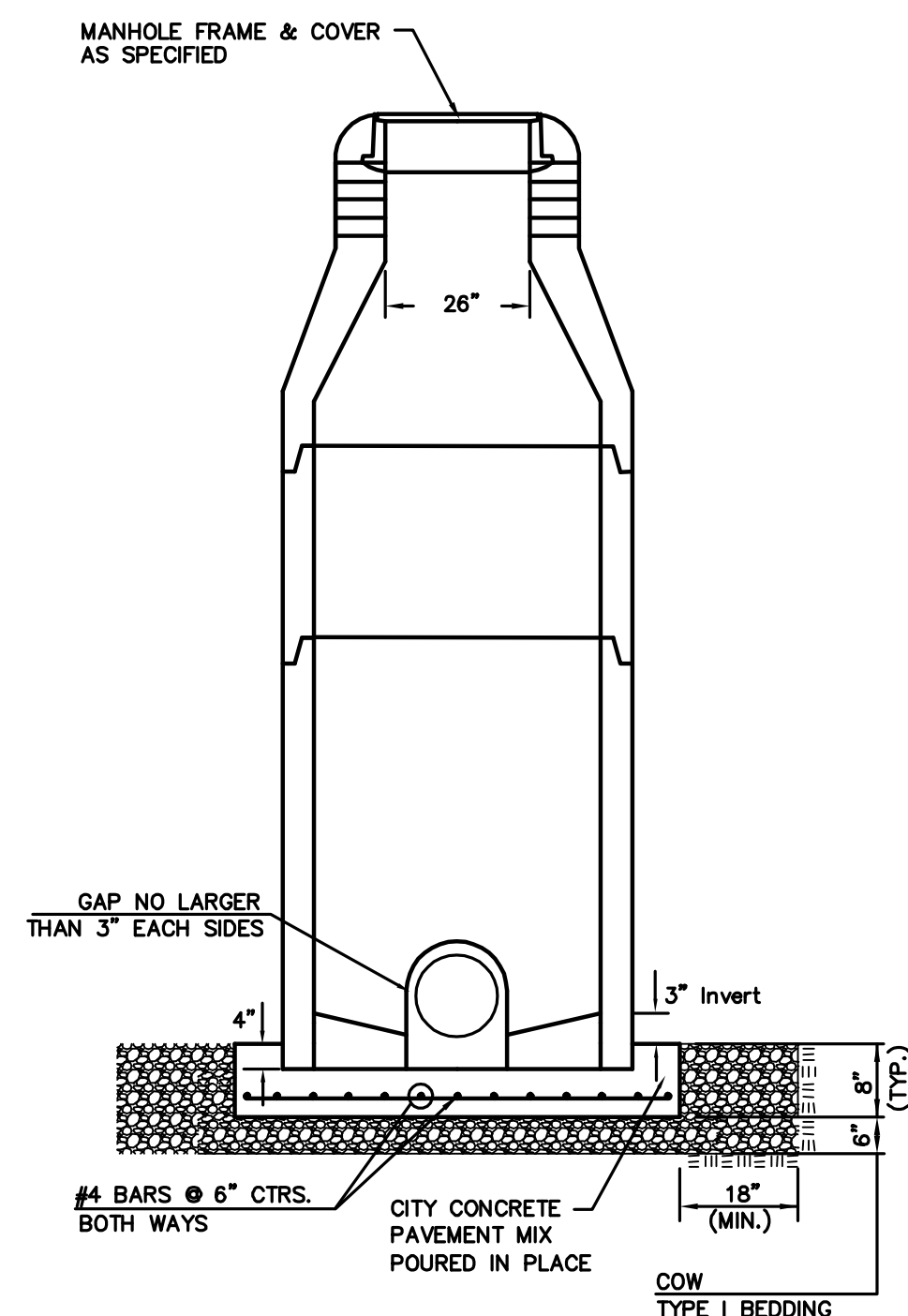
REVISED

SHEET NO.  
**1 of 6**

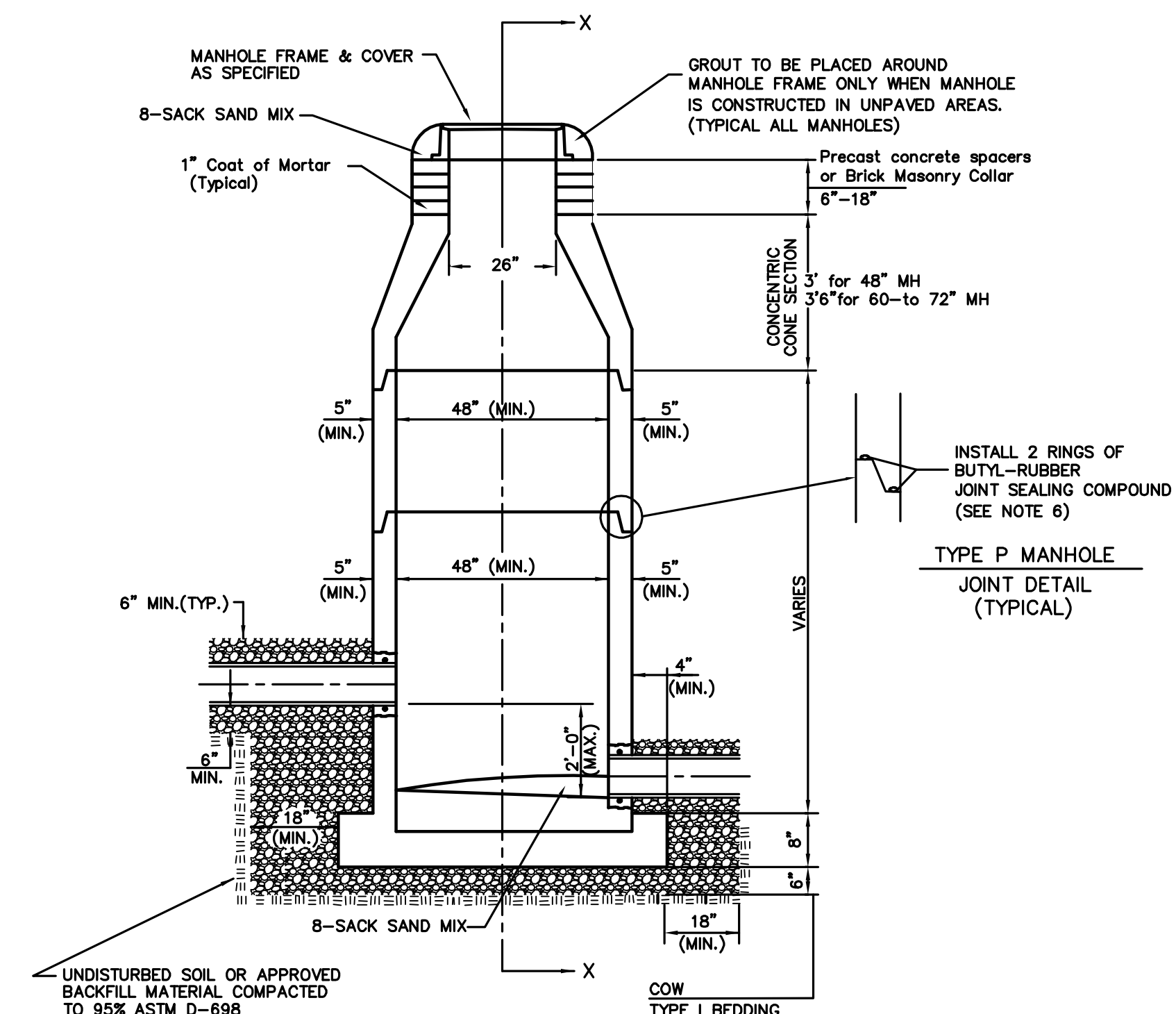
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PLOT DATE: Saturday, April 27, 2013 8:03:25AM

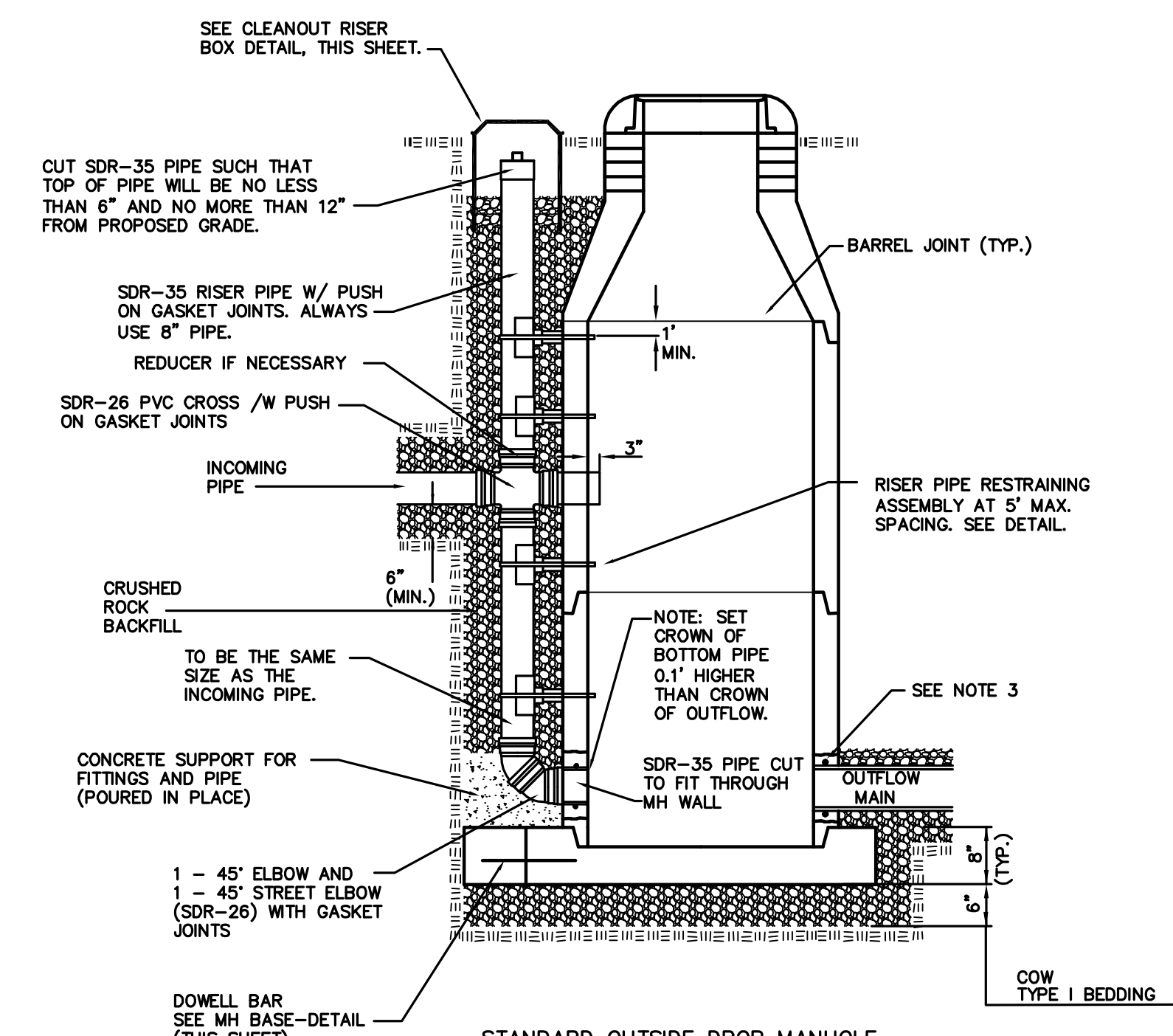
J:\PROJECTS\2012\1201010451\_GREYSTONE - PRESBYTERIAN MANORS\5-CIVIL\CAD\SM\12451\_L1.DWG



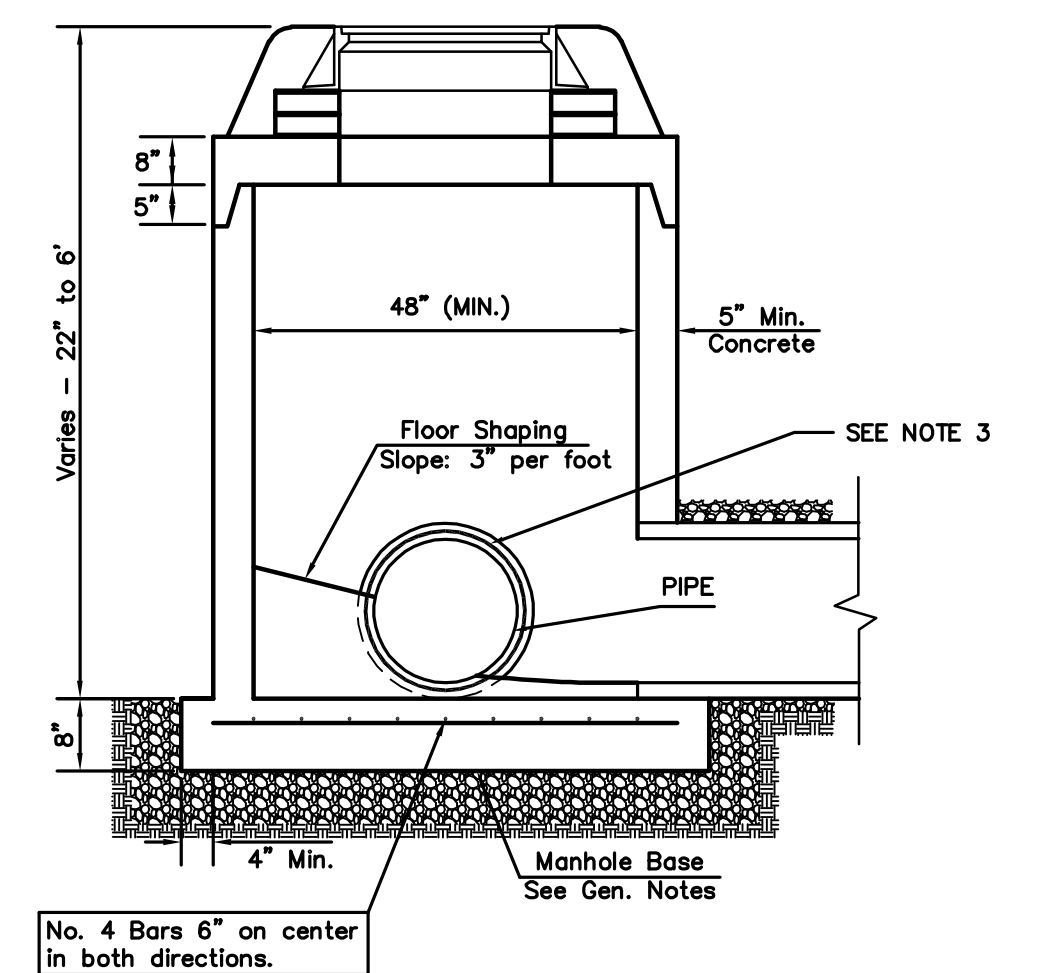
**DOG HOUSE MANHOLE**  
(OVER EXISTING PIPE)  
Not to Scale



**STANDARD MANHOLE**  
Not to Scale



**STANDARD OUTSIDE DROP MANHOLE**  
Not to Scale

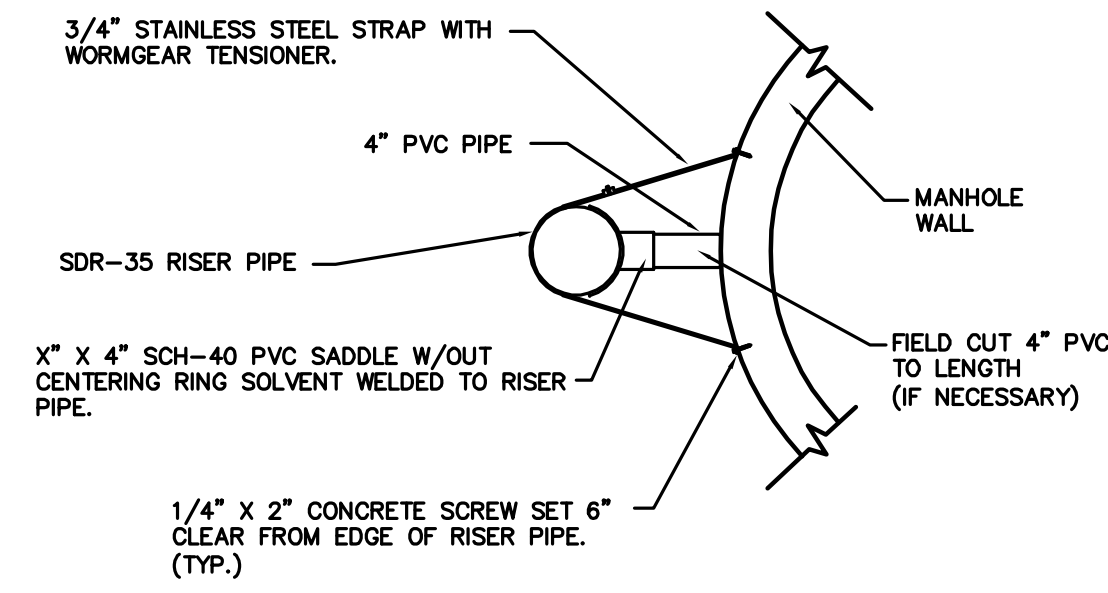


**SHALLOW MANHOLE**  
Not to Scale

= COW TYPE I BEDDING  
 = UNDISTURBED SOIL

**PRECAST MANHOLE GENERAL NOTES**

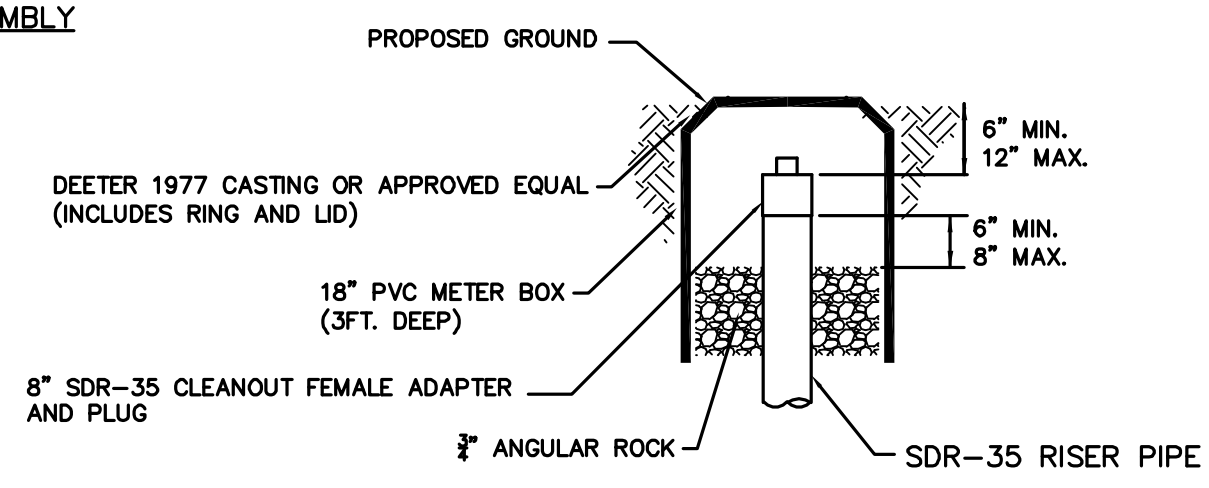
- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
- NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
- APPROVED FLEXIBLE WATERSTOP SHALL BE INSTALLED TO JOIN THE SEWER PIPE TO THE MANHOLE WALL. THE SEWER PIPE SHALL BE SUPPORTED WITH CRUSHED ROCK A MINIMUM OF 3 FEET FROM THE FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
- ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED PER SECTION 804.4 OF STANDARD SPECIFICATIONS.
- EXTERIOR MANHOLE WALLS SHALL BE COATED PER SECTION 804.4 OF STANDARD SPECIFICATIONS.
- JOINT SEALING COMPOUND SHALL BE PER 804.4 OF STANDARD SPECIFICATIONS.
- ALL MANHOLE SECTION JOINTS THAT WILL BE IN GROUNDWATER OR GREATER THAN 12' DEEP SHALL BE WRAPPED WITH AN EXTERNAL JOINT SEAL PER SECTION 804.4 OF STANDARD SPECIFICATIONS. AS INDICATED BY THE PLANS.
- PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE FOR DOG HOUSE MANHOLES.
- TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
- LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO.4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- WALL THICKNESS SHALL BE 1" GREATER THAN MANHOLE DIAMETER IN FEET.
- OPENINGS SHALL BE CORE DRILLED INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS DRILLED INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
- MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
- THE VERTICAL DROP IN STANDARD MANHOLES SHALL NOT EXCEED 2' REGARDLESS OF PIPE SIZE. THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
- STANDARD MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
- PRECAST CONCRETE SPACERS OR BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.
- THE FULL DIAMETER OF THE MANHOLE SHALL EXTEND THE ENTIRE DEPTH OF THE MANHOLE TO THE CONE SECTION. NO REDUCTION IN MANHOLE DIAMETER WILL BE ALLOWED.
- REFER TO PLANS FOR SIZE OF OUTSIDE DROP RISER, SADDLES AND CROSS.



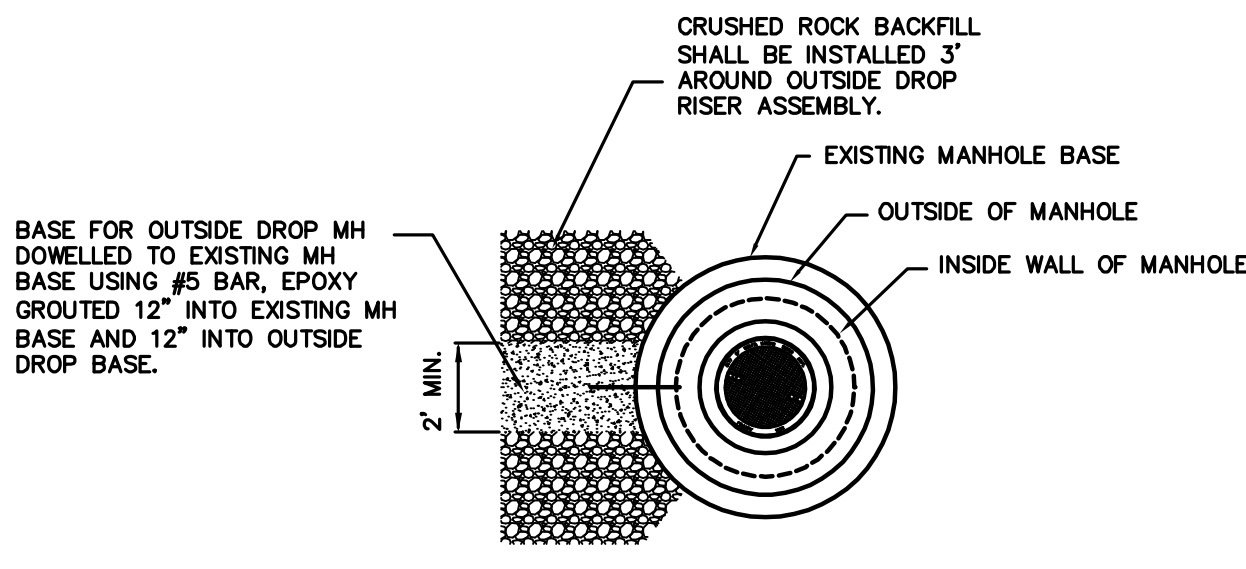
**RISER PIPE RESTRAINING ASSEMBLY**  
Not to Scale

**SANITARY SEWER MANHOLE DIAMETERS**

DIAMETER	DEPTH	PIPE SIZE
4'	0'-15'	8"-18"
5'	15'-30'	21"-30"
6'	>30'	36"-60"



**CLEANOUT RISER BOX DETAIL**  
Not to Scale



**MH BASE DETAIL**  
Not to Scale

**CITY OF WICHITA**  
PUBLIC WORKS & UTILITIES  
ENGINEERING DIVISION

**PRECAST SANITARY SEWER MANHOLE**

CITY ENGINEER  
**GARY JANZEN, P.E.**

PROJECT NUMBER <b>2160PPS</b>	OCA NUMBER <b>607861</b>	DATE <b>04/2013</b>
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CITY ENGINEER'S OFFICE  
CITY HALL - SEVENTH FLOOR  
455 NORTH MAIN STREET  
WICHITA, KANSAS 67202-1620  
(316) 268-4501

DESIGN

DRAWN

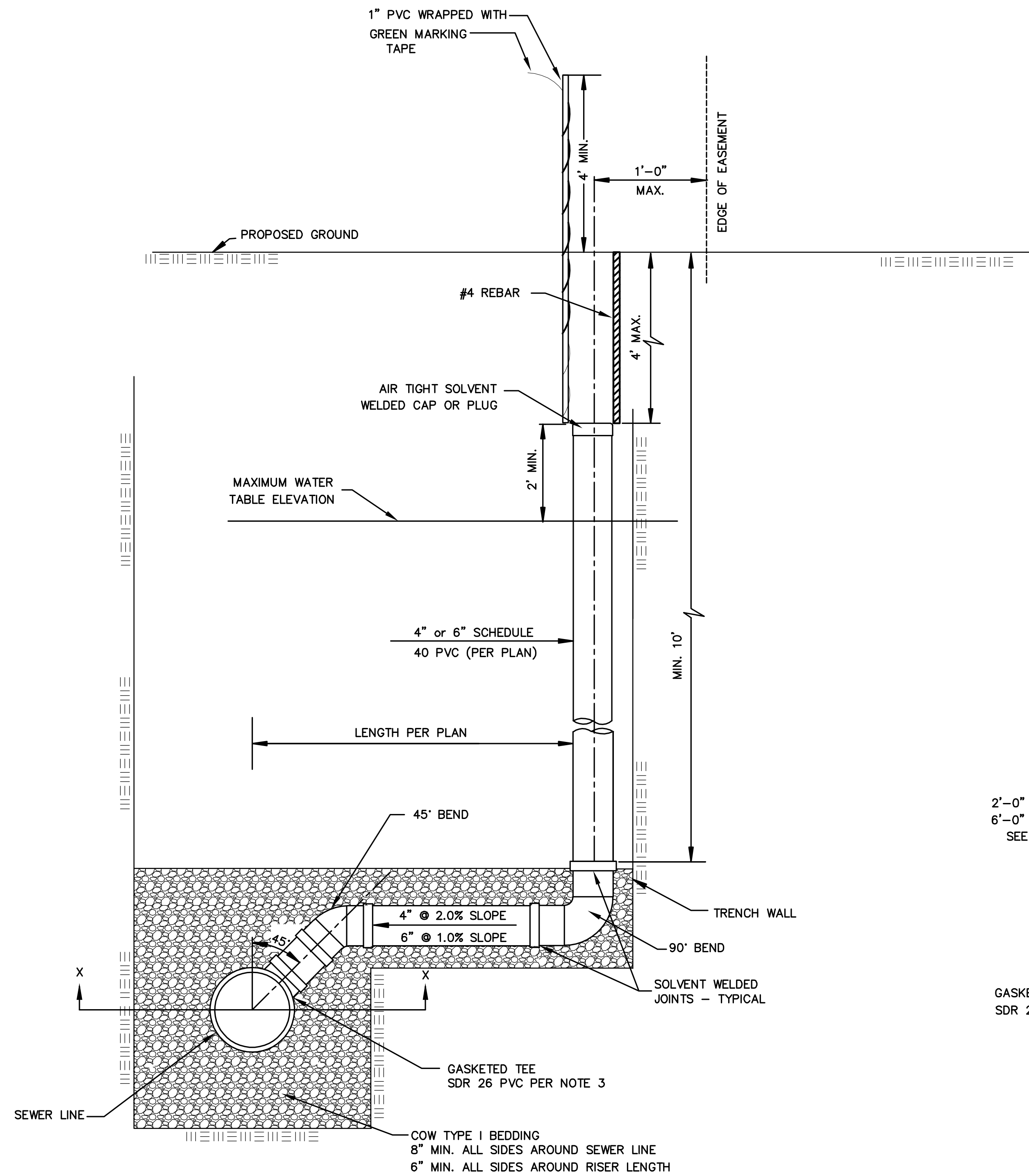
SHEET

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GENERAL NOTES

- APPLICATION. Risers shall be installed to serve all lots or tracts where the sanitary sewer main is below the water table, where the sanitary sewer main depth is greater than 12' below the proposed ground elevation, where the main is adjacent to a pond or wherever service lines would have to cross under storm sewer pipe. Installation of risers because of field conditions shall be as approved by the City Engineer. The location of the risers to serve developed property shall be approved by the property owner and the Construction Engineer.
- MANHOLE STUB RISERS. Manhole stub risers be installed in manholes where locations of manholes will provide satisfactory service connection as determined by the Construction Engineer. The vertical distance between the flowline of the manhole stub and the flowline of the sanitary sewer line out of the manhole shall not exceed 2' stub. Risers shall be utilized at manholes as indicated in Note 1. Manhole stub riser shall be set such that the top of the stub is not lower than the top of the sanitary sewer line.
- SIZING. Risers shall be sized according to the plans and riser table where risers are indicated by the plans. Where risers are required because of field conditions, the risers shall be 6" diameter for commercial or industrial properties and 4" or 6" diameter for residential properties, based on lot size and sanitary sewer main depth. Sizing of risers shall be approved by the construction Engineer prior to installation.
- RISER MATERIAL. Risers shall be constructed of Schedule 40 PVC pipe, meeting the requirement of the latest revision of A.S.T.M.. All pipe joints shall be solvent welded. Full body tee shall be SDR 26 PVC pipe.
- ROCK ENCASUREMENT. Riser connection to clay pipe sanitary sewers shall be rock encased both ways from the riser centerline. The rock encasement shall extend three feet from the riser centerline or stop at the first sanitary sewer pipe joint within three feet of the riser centerline. Riser connections to PVC Sanitary sewer mains shall be rock encased one foot each way from the riser centerline. Crushed rock shall conform to ASTM C-33, Gradation No. 67, and shall meet all requirements for Portland Cement Concrete pavement Coarse Aggregate, Section 406.2, City of Wichita Standard Specifications.
- BEDDING. Beyond the limits of the rock encasement, bedding around the sanitary sewer riser shall be compacted Pipe Bedding Type 1 or 2. The bedding shall be placed and compacted from the depth of the sanitary sewer main to the top of the sanitary sewer riser pipe. Compacted Pipe Bedding Type 1 or 2 shall be required for all risers whether constructed in vertical wall or sloped wall trenches. Bedding material and construction practices shall be approved by the Construction Engineer prior to installation.
- SUPPORT OF RISERS. Sanitary sewer riser pipe shall be supported during trench backfill. The riser pipe shall be held in a vertical position at all times until trench backfill and compaction has been completed. Contractor's methods for supporting and back filling the riser pie shall be approved by the Construction Engineer.
- PLUGGING. The ends of the riser pipes and manhole stubs shall be plugged using an airtight solvent welded cap or plug. Cap or plug fittings shall be approved by the Construction Engineer prior to installation. Caps or plugs which do not provide an airtight seal will not be accepted.
- TOP OF THE RISER PIPE. The top elevation of the sanitary sewer riser pipe shall be built per plan elevations, unless otherwise directed by the Construction Engineer. where riser elevations are not shown on the plans, the top of the risers shall be set at an elevation four feet below the proposed ground surface. If ground water is encountered, the top of the riser pipe shall be set at an elevation 2' (min.) above the maximum water table elevation, regardless of the riser elevation shown on the plans.
- MARKING. Locations of the ends of the sanitary sewer riser pipe shall be marked by installing 1" PVC from the top of the riser to a minimum of 4' above the top of finished grade. No. 4 rebar shall be placed centered over the riser from the cap to the existing ground. The 1" PVC pipe shall be wrapped with green colored plastic tape, for the full length above ground surface. The green tape shall be 4 mil Polyethylene film with a minimum width of three inches, specifically manufactured for the purpose of identification of underground sewers.
- LOCATION MEASURES. The project inspector shall record and document the location of all risers constructed as measured from the nearest manhole, indicate the direction from the manhole, the direction and distance from the main, riser size, and elevation of the top of the riser in tabular format.
- RISER LOCATION. the riser shall be located per plan if shown. If not shown on the plan, the riser shall be located at the center of the lot, within one foot of the property side of the easement for the lot being served. All riser locations shall be approved by the Construction Engineer prior to installation.
- PAYMENT. "Riser Assembly, Vertical " shall be paid for at the contract unit price per each, which shall be full compensation for all pipe, fittings, marking tape, length of backfill, labor, site restoration, and any other items necessary to complete the work.

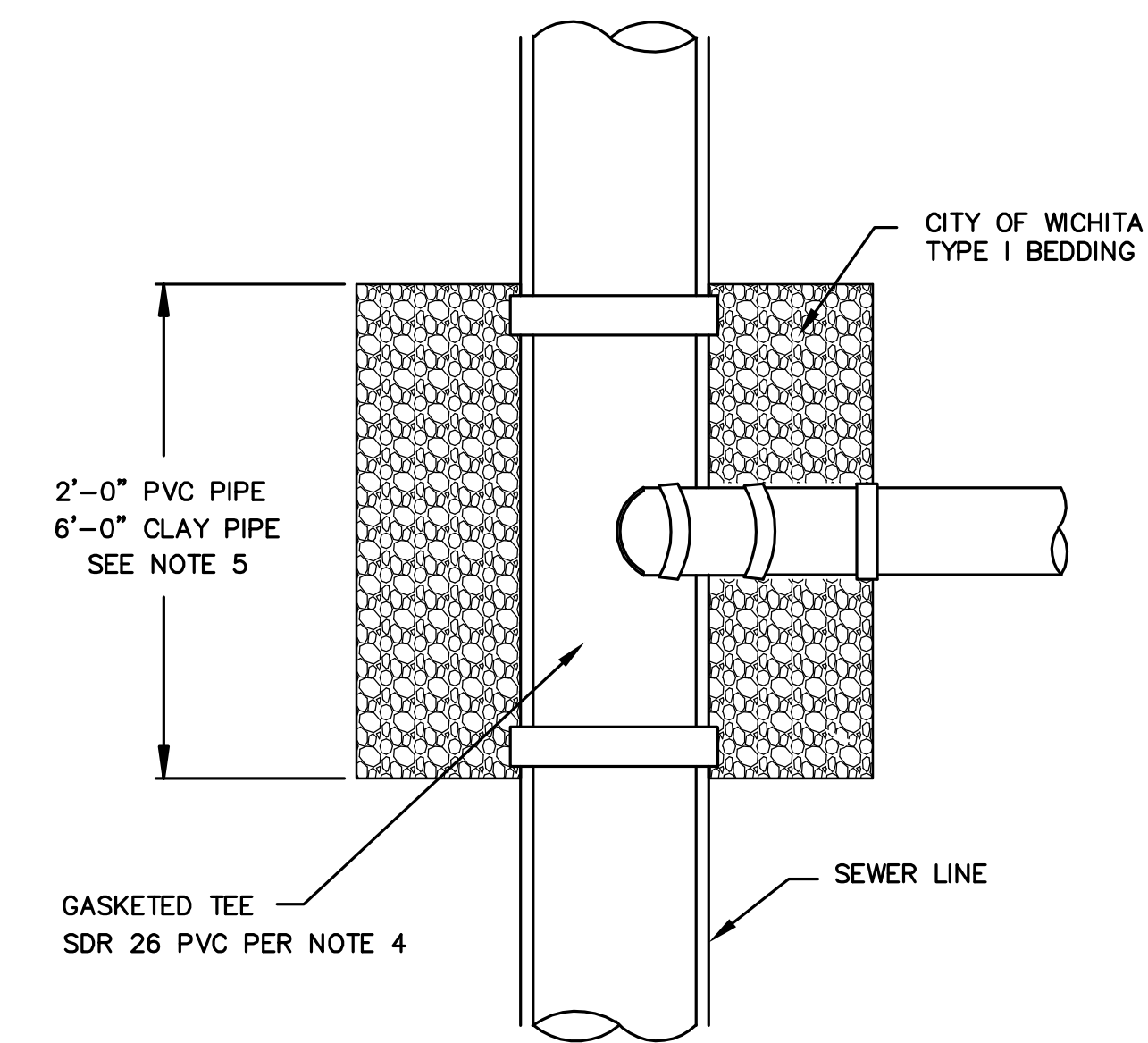
"Riser Assembly, Manhole Stub" shall be paid for at the contract unit price per each, which shall be full compensation for all labor material and incidentals necessary to complete the work including all pipe, fittings, rock encasement, and all other items as required and listed for "Riser Assembly, Vertical "



NOTE: RISER PIPE REQUIREMENTS AT MANHOLE STUBS SHALL BE SIMILAR TO THOSE SHOWN ABOVE.

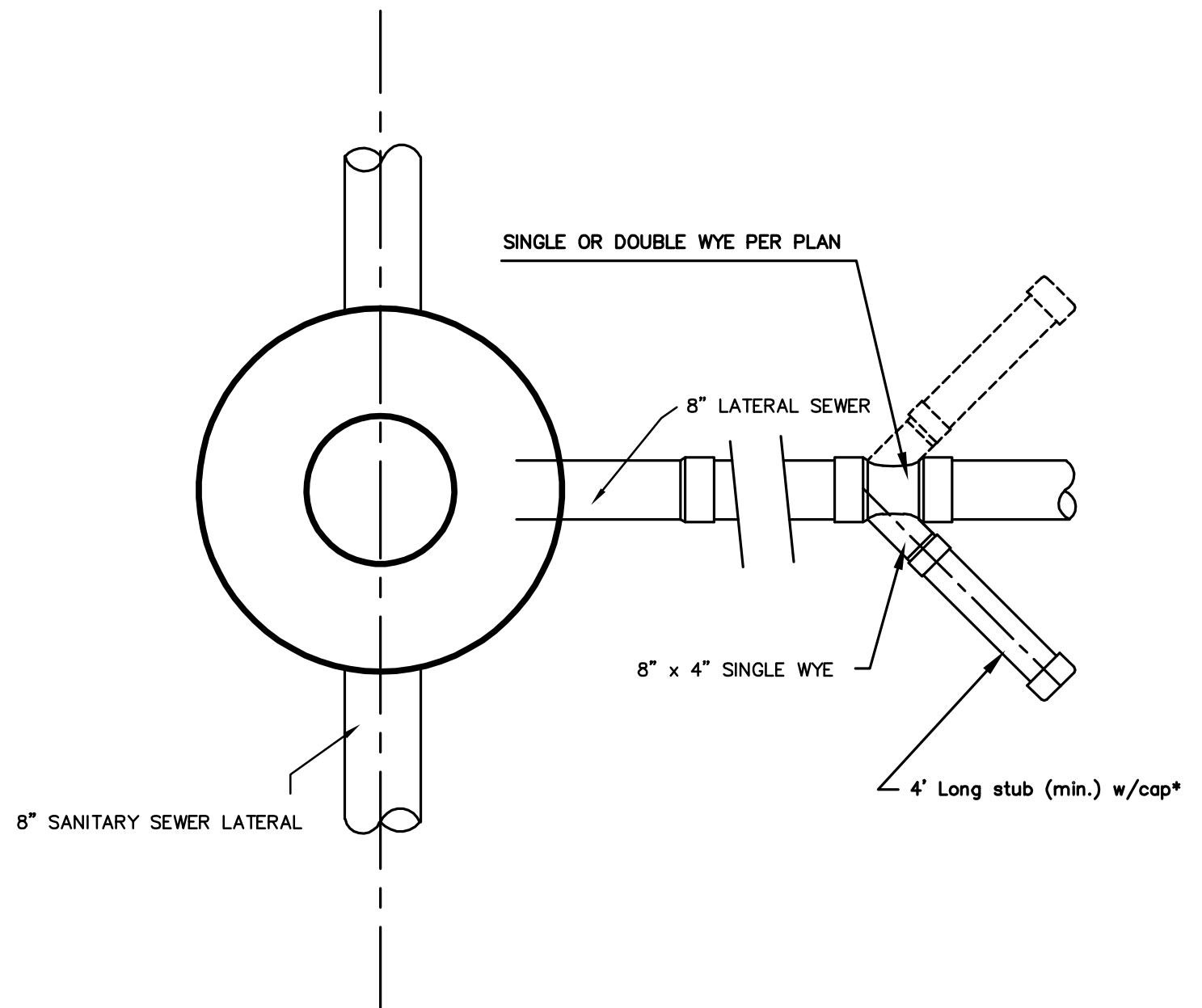
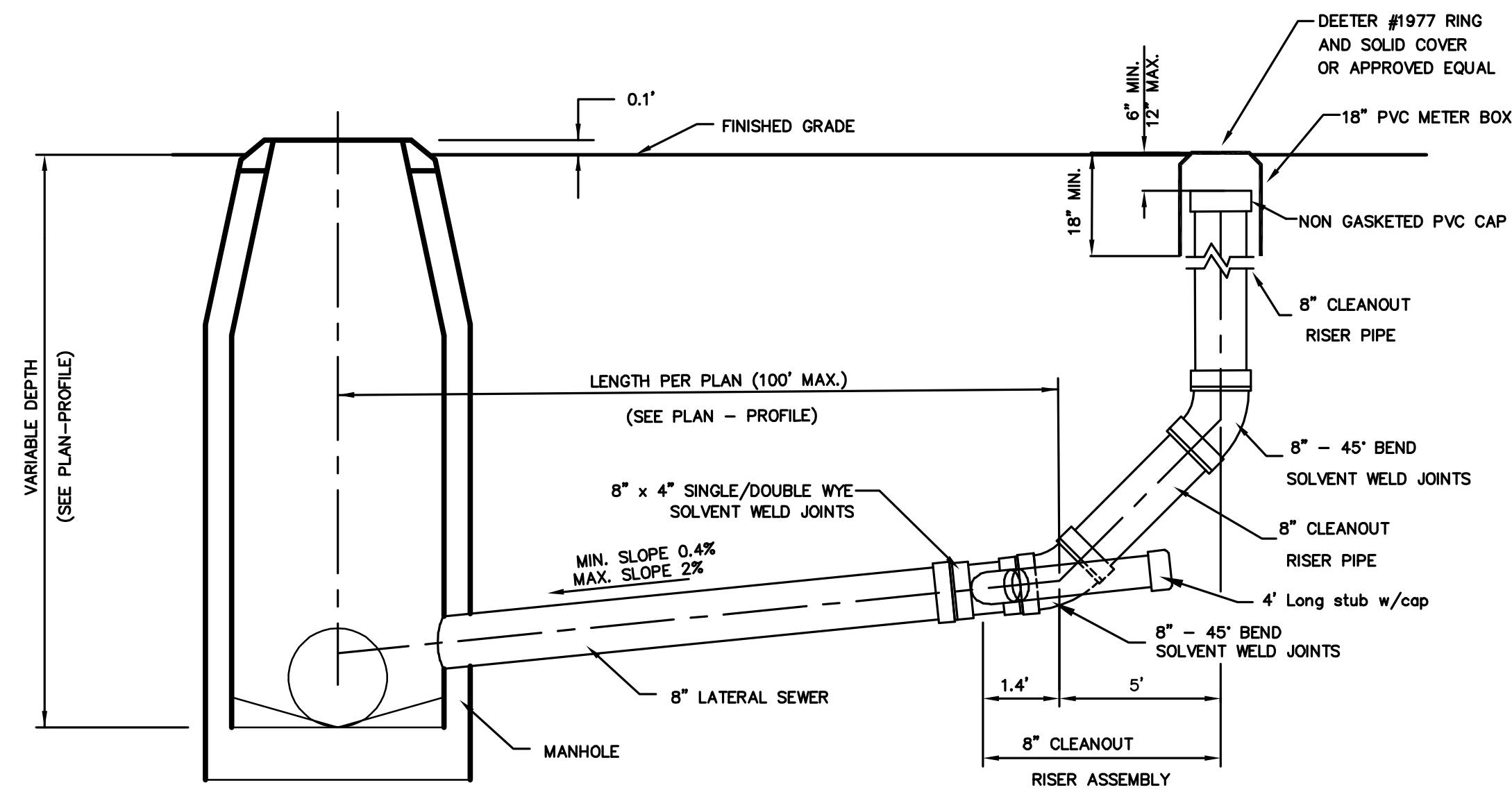
PROPOSED RISER TABLE						
NO.	TYPE	LOCATION			FOR INFORMATION ONLY	
		LOT/BLOCK	LINE NO.	STATION/DIRECTION	APPROXIMATE LENGTH 4" PIPE	
1	TEE SERVICE CONNECTION	LOT 1, BLK. 1	1	14+80/LT	14'	18'
2	TEE SERVICE CONNECTION	LOT 1, BLK. 1	1	15+12/LT	14'	18'
3	MH SERVICE CONNECTION	LOT 1, BLK. 1	1	18+06/LT	14'	32'

NOTE:  
NON SHEAR COUPLING TO BE USED  
WHEN HOOKING TO CLAY PIPE.



TYPICAL SECTION X-X

<p>CITY OF WICHITA PUBLIC WORKS &amp; UTILITIES ENGINEERING DIVISION</p>	<b>VERTICAL RISER ASSEMBLY SEWER DETAIL</b>		
	CITY ENGINEER <b>GARY JANZEN, P.E.</b>		
	PROJECT NUMBER 2160PPS	OCA NUMBER 607861	DATE 04/2013
	CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		
		DESIGN	DRAWN
		SHEET	
		<b>3 of 6</b>	




CLEANOUT RISER ASSEMBLY DETAIL  
W/ MANHOLE CONNECTION

\* 4" BRANCH (EACH SIDE) TO SERVE AS 4" STUB TEMPORARY CAP UNTIL SERVICE CONNECTION IS REQUIRED. SINGLE OR DOUBLE WYE TO BE USED WHERE INDICATED ON PLAN. WHEN IN GROUNDWATER 4" STUB NEEDS VERTICAL RISER.

\*\* 8" LATERAL TO BE AIR-TESTED UP TO THE TOP OF PVC PIPE, PER STANDARD SPECIFICATIONS.

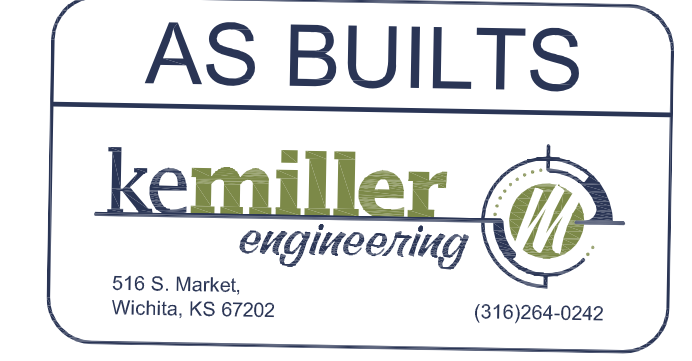
GENERAL NOTES:  
 TAPS: NO TAPS ARE PERMITTED BETWEEN THE MANHOLE/TEE AND THE CLEANOUT RISER.  
 BEDDING: BEDDING AROUND THE SANITARY SEWER RISER SHALL BE COMPACTED PIPE BEDDING TYPE 2. (TYPE 1 IN GROUNDWATER).  
 MATERIAL: RISER AND LATERALS SHALL BE CONSTRUCTED OF SDR-35 PVC PIPE. TEES SHALL BE SDR-26 PIPE, 4" STUBS SHALL BE SCHEDULE 40.  
 CONNECTIONS: ALL SERVICE CONNECTIONS MUST BE MADE TO THE WYE PROVIDED.

 <p>CITY OF WICHITA PUBLIC WORKS &amp; UTILITIES ENGINEERING DIVISION</p>	<b>CLEANOUT RISER ASSEMBLY DETAIL</b>		
	CITY ENGINEER <b>GARY JANZEN, P.E.</b>		
	PROJECT NUMBER <b>2160PPS</b>	OCA NUMBER <b>607681</b>	DATE <b>04/2013</b>
	CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		DESIGN DRAWN SHEET <b>4 of 6</b>

MANHOLE LOCATIONS		
NO.	NORTHING	EASTING
1-1	1693947.56	1631895.02
1-2	1694238.77	1631902.40
1-3	1694329.10	1631822.42
1-4	1694623.80	1631561.45
1-5	1694625.94	1631522.07

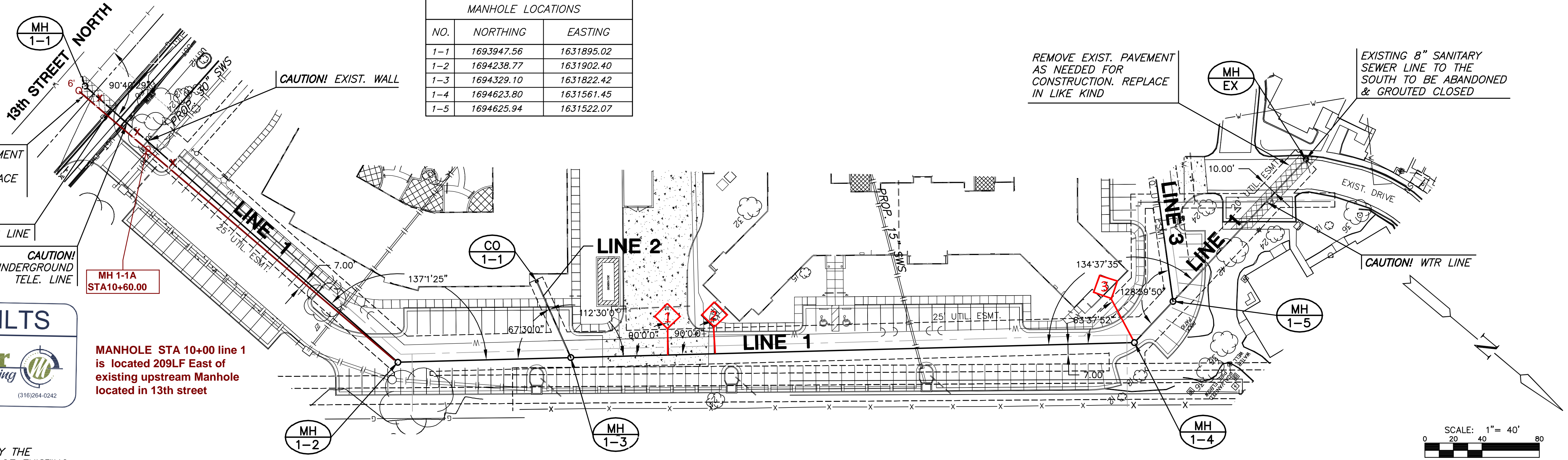
MH1-1 moved 6' East because of power pole  
MH-1 moved 2' South to be over 15" clay tile main

REMOVE EXIST. PAVEMENT AS NEEDED FOR CONSTRUCTION. REPLACE IN LIKE KIND

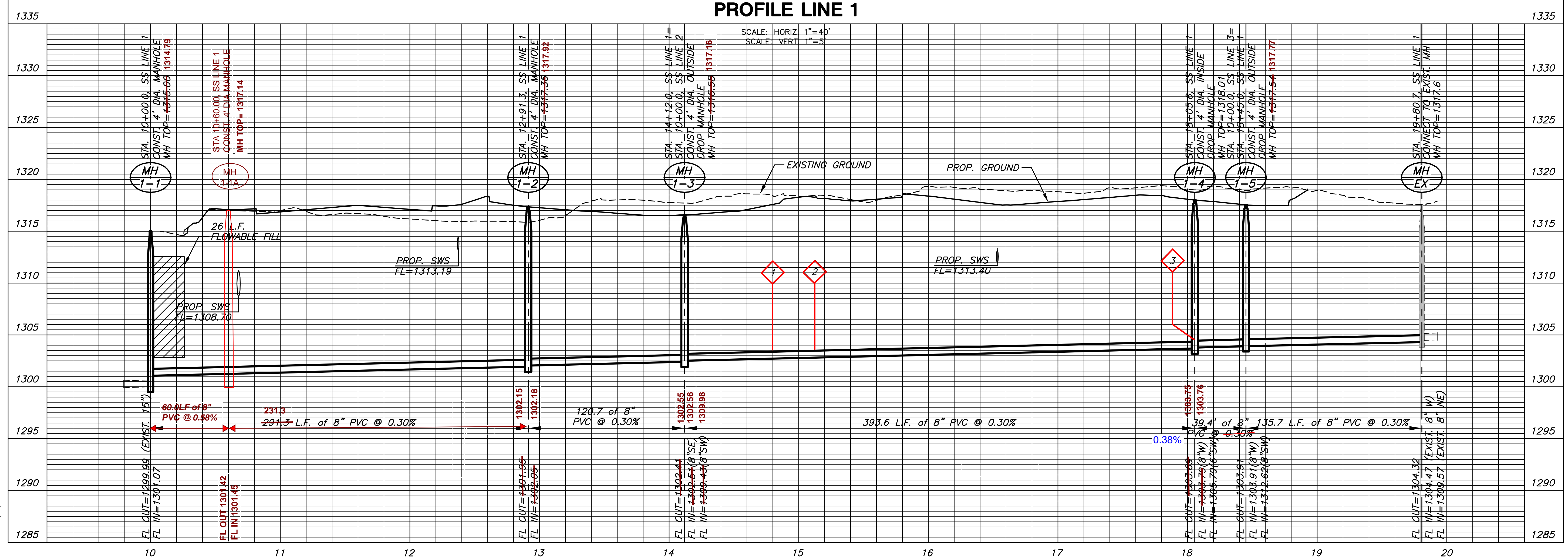


MANHOLE STA 10+00 line 1 is located 209LF East of existing upstream Manhole located in 13th street

NOTE: CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.



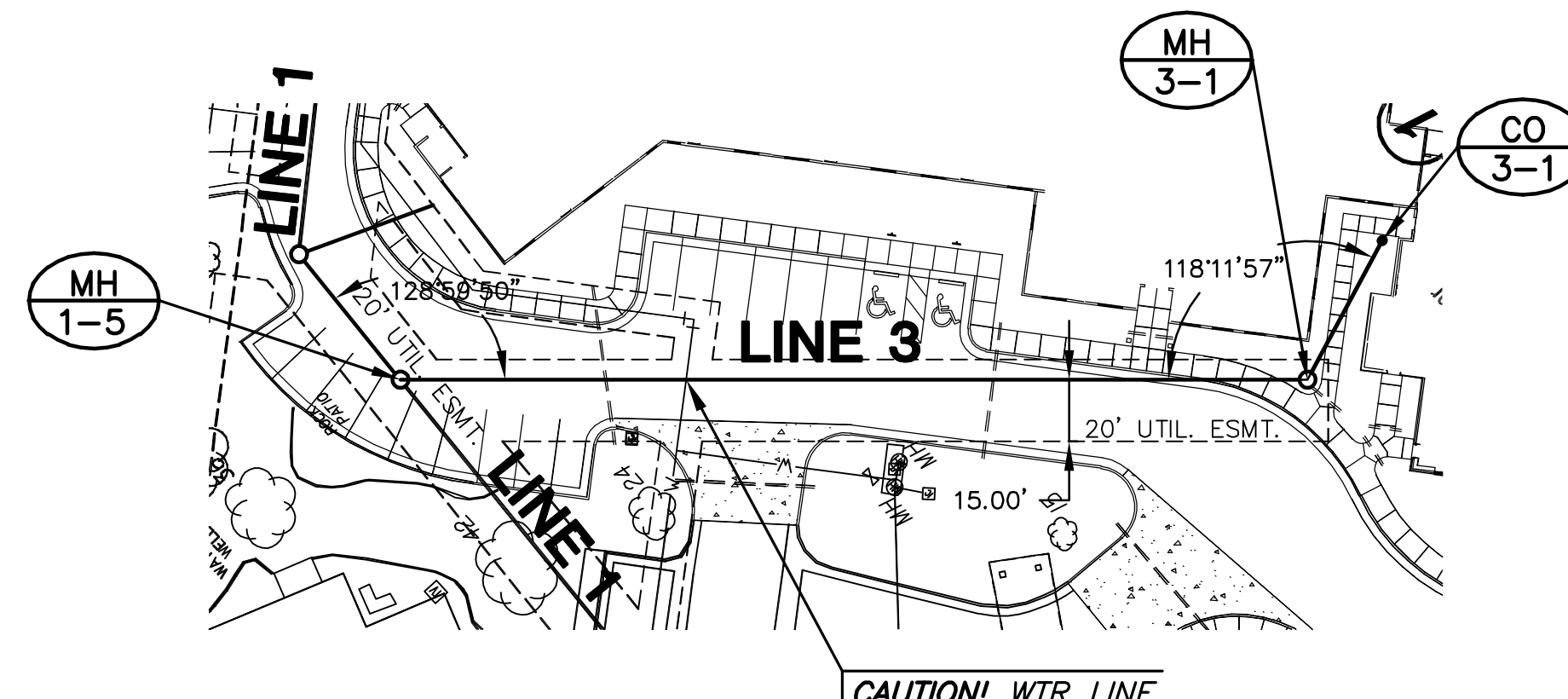
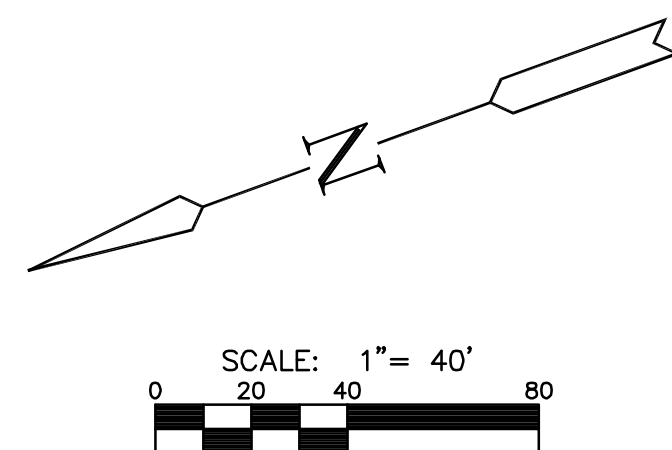
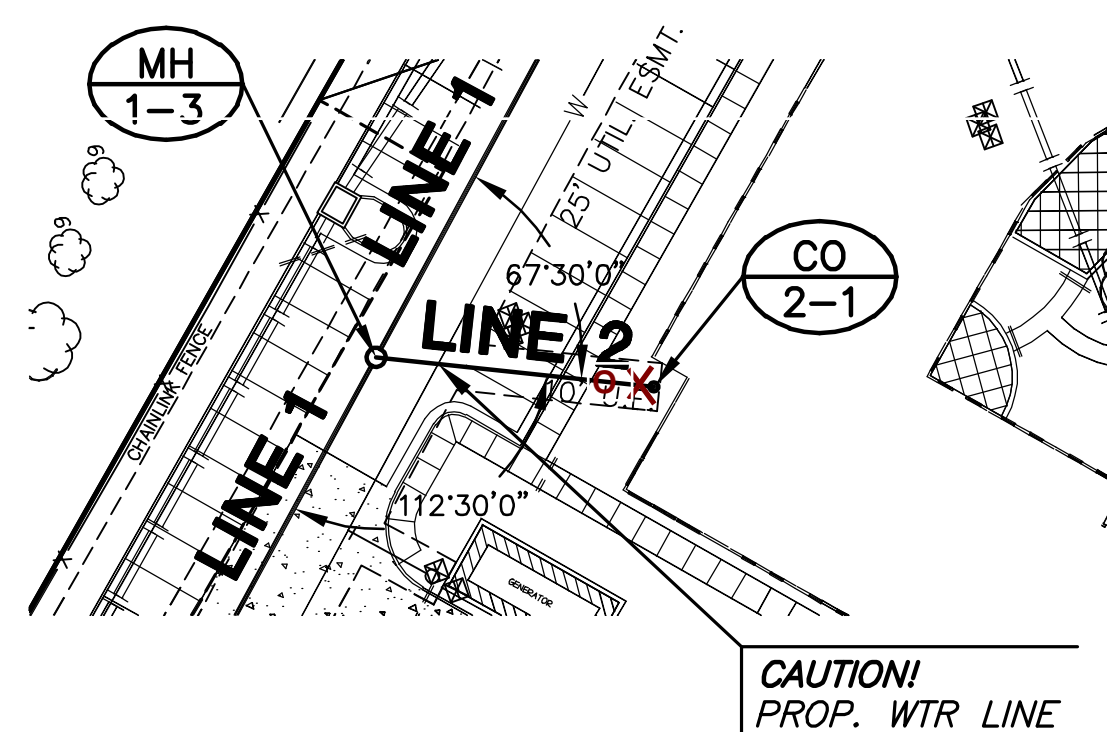
**PLAN LINE 1**  
**PROFILE LINE 1**



PLOTTED: Thursday, April 18, 2013 @ 01:35PM

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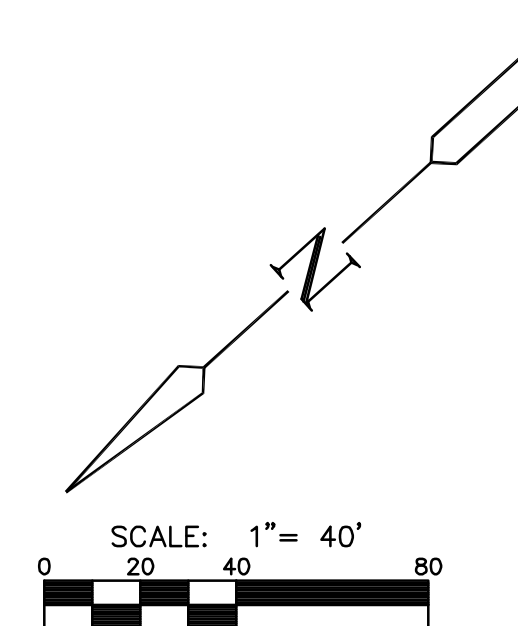
MANHOLE LOCATIONS		
NO.	NORTHING	EASTING
1-3	1694329.10	1631822.42
1-5	1694625.94	1631522.07
3-1	1694461.45	1631373.45



AS BUILTS

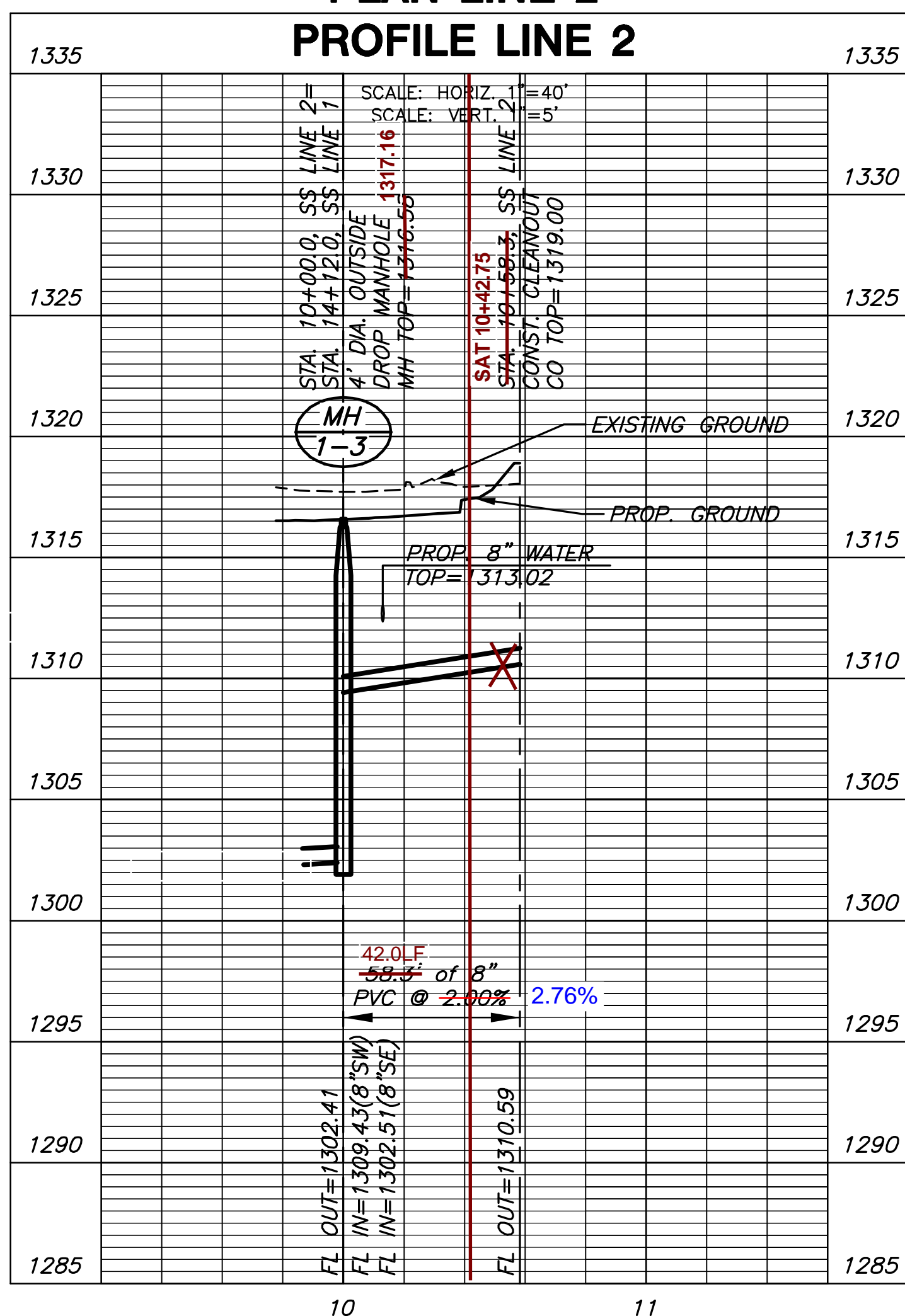


516 S. Market,  
Wichita, KS 67202  
(316)264-0242

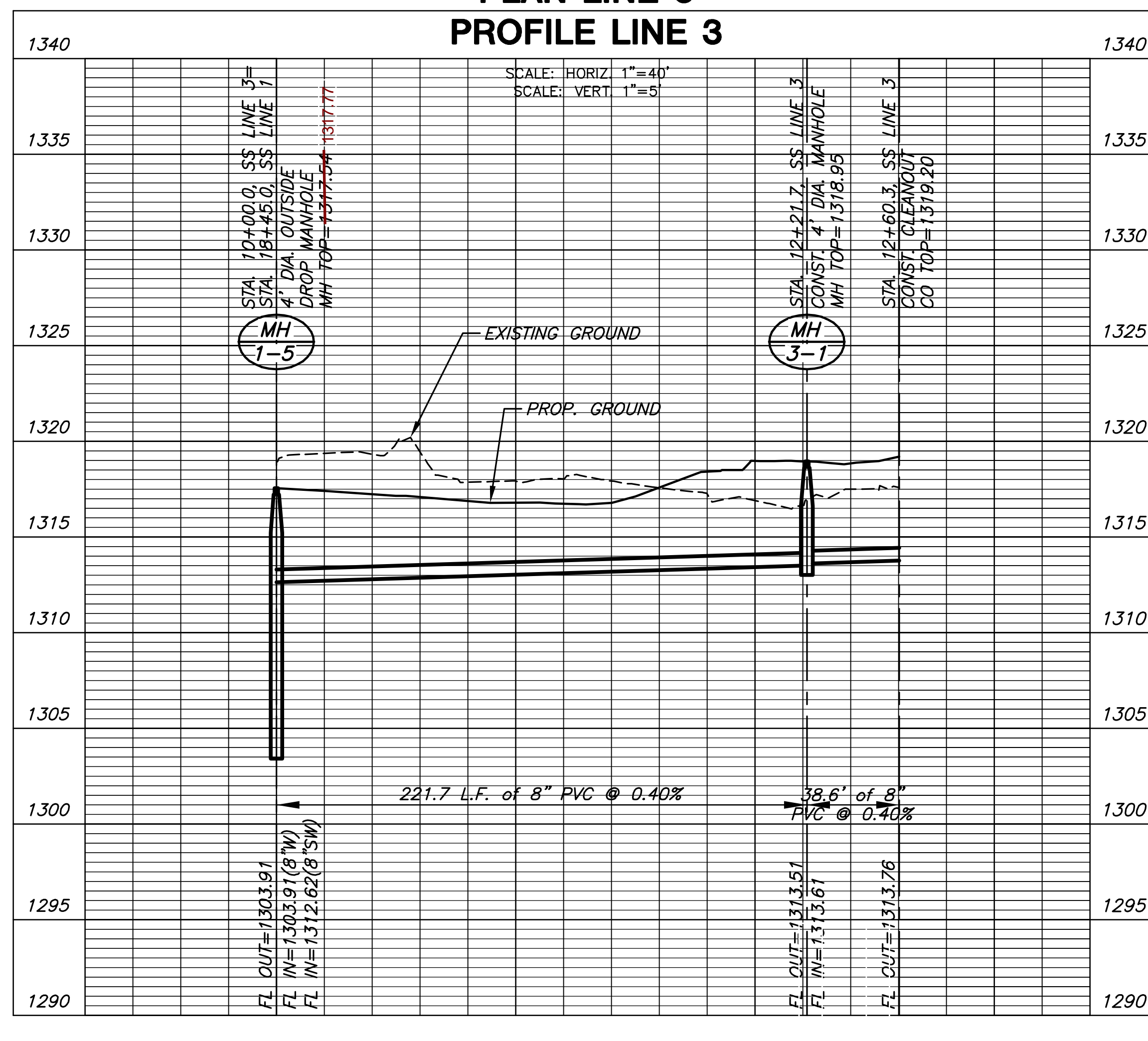


NOTE:  
CONTRACTOR TO VERIFY THE  
DEPTH AND LOCATION OF EXISTING  
UTILITIES PRIOR TO CONSTRUCTION.

PLAN LINE 2  
PROFILE LINE 2



PLAN LINE 3  
PROFILE LINE 3



MKEC  
ENGINEERING  
CONSULTANTS, INC.

411 N. WEBB ROAD  
WICHITA, K.S. 67206  
316-684-9600

SANITARY SEWER PLANS FOR  
**PRESBYTERIAN MANOR**  
WICHITA, KANSAS

SS  
**LINE 2**  
SHEET TITLE  
2160PPS  
PROJECT NUMBER

SPE | BKS | GJA  
DESIGNED | DRAWN | CHECKED

ISSUED  
April 2013  
REVISED

SHEET NO.  
**6 of 6**

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PLOTTED: Thursday, April 18, 2013 @ 01:38PM

PC:WALSH: BPS:WALSH